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Auftragstaktik: We Can't Get There From Here

A Monograph
by

Major Michael J. Harwood
Infantry

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ABSTRACT

Auftragstaktik: We Can't Get There From Here. By Major Michael J. Harwood, USA, 52 pages.

The authors of AirLand battle doctrine, realizing the importance of decentralized command and control on the modern battlefield, incorporated Auftragstaktik in US Army doctrine to deal with the uncertainty of war. Despite the importance of Auftragstaktik in our doctrine, it is not embraced by the Army seven years after FM 100-5, Operations was published.

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I. INTRODUCTION

The warfighting doctrine of the U.S. Army is now seven years old. Field Manual (FM) 100-5, Operations, though still controversial in some key areas, is considered by many to be an enlightened approach to warfighting. For the first time since the beginning of the Cold War, the Army has a doctrine which exudes the spirit of the offense and one which encompasses the moral domain of war. Furthermore, it recognizes the uncertainty endemic to the battlefield. AirLand battle doctrine is the Army's basic operational concept. It is based on securing or retaining the initiative and exercising it aggressively to defeat the enemy. More than ever before, the critical dynamic of initiative will determine the success or failure of the Army.

Over the centuries, warfare has evolved exponentially in terms of tempo and lethality. This evolution has resulted in a battlefield characterized by a non-linear structure, proliferation of technology, and a dispersion of forces. Congruent with this recognition of modern war is the doctrinal realization that decentralized command and control can reduce the effects of friction. To cope with this friction, the authors of FM 100-5 (1982) studied the German Army's warfighting tradition and incorporated Auftragstaktik into the doctrine.

It is the contention of this paper, however, that a void exists within the operational concept of AirLand battle doctrine in the execution of doctrine at the tactical level. By design, this void is to be filled by Auftragstaktik, a holistic approach to command and control used so effectively by the German Army.

Enlightened doctrine requires enlightened executors of that doctrine. Herein lies the shortfall.

Despite the inclusion of Auftragstaktik in AirLand battle doctrine, the Army has not embraced it. The discussion to follow asserts that there are several reasons for this reluctance. For Auftragstaktik to take hold in the Army, it must be accepted and exercised on an Army-wide basis. The Army's senior leadership does not uniformly embrace Auftragstaktik and the Army's style of warfare is incompatible with the precepts of Auftragstaktik. The tradition of initiative within the Army is questionable and the Army's preoccupation with technology and bureaucracy inhibits the full implementation of Auftragstaktik. Until these assertions are addressed and resolved, a command and control void in Army doctrine will continue to exist.

Command and control is the key to AirLand battle doctrine. Given so many hurdles to overcome, Auftragstaktik has a minimal chance of becoming institutionalized within the Army unless dramatic reforms are initiated. The question is whether or not the doctrine can be executed without Auftragstaktik. Impending cuts in defense offer the Army the opportunity to make a great leap towards a more holistic approach to command and control - an approach which could lead to Auftragstaktik.

Why Auftragstaktik? It is a battle tested command system that worked. German use of Auftragstaktik from 1933-1945 provides the historical example upon which the decentralized command and control system of AirLand battle doctrine is modeled.¹ To fully understand Auftragstaktik, and hence the

Army's warfighting doctrine, one must look back to Prussian-German military history from whence the German Army's World War II application of Auftragstaktik evolved. But this only provides a partial examination. A historical perspective of the Army's command and control doctrine is also necessary to provide an American spin and to offer a means of comparison with the doctrine of the German Army. Key to both Auftragstaktik and AirLand battle doctrine is the role senior leadership plays in the institutionalization process of a decentralized command system. The conclusions drawn from historical analysis have modern day doctrinal implications for the Army.

II. AUFTRAGSTAKTIK

Auftragstaktik, as practiced by the German Army during World War II, actually developed through the reforms of the 19th Century Prussian Army initiated by Field Marshal von Moltke and others. Moltke's belief that "strategy is a system of expedients"² and his conclusion that a plan was of little use once initial contact was made with the enemy permeated throughout all levels of command. The result was the requirement for a common understanding of tactics, techniques, and procedures to allow a subordinate the opportunity to accomplish his commander's concept of the operation. Such initiative inspired subordinates at each level of command to find the best available solution to battlefield challenges.³ Prussia's wars with Austria and France demonstrated to Moltke and the Prussian Army the horrific lethality of war. Greater

dispersion of forces resulted, a phenomenon which has been so⁴
aptly described as the empty battlefield.

Prussian war experience compelled the new German Imperial Army to adjust to this notion of the empty battlefield. Early evidence of this adjustment occurred during the Austro-Prussian War, or "Captains War" of 1866. Officers, NCO's, and soldiers were charged with the personal responsibility to take action⁵ based upon the situation and their best judgment. In the 1888 edition of the Drill Regulations of the Infantry, commanders were required to issue guidance to subordinates regarding what to do, not how to do it. The dispersed nature of the battlefield prohibited detailed guidance to lower, tactical levels due to time and space considerations. Commanders whose units were spread across the battlefield could not react quickly enough to instructions sent down by higher commanders. Nor could commanders personally supervise their dispersed forces. Sun Tzu had an answer for this dilemma: "When you see the⁶ correct course, act; do not wait for orders." Freedom of action was needed to generate speed of decisive action on the battlefield. Lower level decision-making was used as a means to compensate for the friction created by time and distance factors. It was more than just a technique; commanders expected this sort of behavior from their subordinates. Not only were subordinates given the authority to act, but the responsibility to act as well. Speed gained at the tactical level resulted in speed at the strategic level, as will be discussed later.

Subsequent editions of German Field Service Regulations kept pace with the ever increasing lethality of warfare and the

dispersion on the battlefield. The 1906 Regulation stated:
"Combat demands thinking, independent leaders and troops,
capable of independent action." ⁷ Building upon this
declaration for full participation on the battlefield, each
regulation from 1908-45 asserted that all soldiers, regardless
of rank, were duty bound to commit the full breadth of their
mental and physical skills to influence the action on the
battlefield. ⁸ This was succinctly articulated in the
Regulations of 1936:

The emptiness of the battlefield demands independently
thinking and acting warriors who exploit each
situation in a considered, determined and bold
way...from the youngest soldier upward, the
independent commitment of all spiritual, intellectual,
and physical faculties is demanded. (9)

General Hermann Balck, Commander in Chief of 6th German Army
during World War II, summed up the German attitude in this
manner:

We lived off a century-long tradition, which is that
in a critical situation the subordinate with an
understanding of the overall situation can act or
react responsibly. We always placed great emphasis
on the independent action of the subordinates... (10)

For the German Army to demand such a commitment from
subordinates, it necessitated a common understanding of the
nature of war to provide a framework for action..

This understanding was shaped by several influences which
forge any armed force's understanding of warfare. As mentioned
earlier, it was important for the Prussian-German Army to
achieve speed at the tactical level to gain speed at higher
levels. The Prussian-German central geopolitical position on
the continent of Europe demanded decisive action through speed

to avoid fighting on multiple fronts simultaneously. German Army training reflected this strategic mandate for speed. Officers and soldiers of all ranks were trained to rapidly size up a situation, make a quick decision, produce a brief order,¹¹ and vigorously execute the mission.

Demographics and available manpower can determine how a nation views its prospects for success in war and how it will fight in that war. Prussia's defeat at the hands of Napoleon in the early 19th Century brought about social and military reform in Prussia. The abolishment of serfdom in Prussia, the emergence of a middle class officer corps, and the need for initiative in light infantry units to fight as skirmishers demonstrated Prussia's resolve to change. Individuals, too, can help define an army's understanding of war. In this respect, Carl von Clausewitz and his writings on the uncertainty of war profoundly influenced German military thought and, consequently, the German view of war.

In On War, Clausewitz stated that "four elements make up the climate of war: danger, exertion, uncertainty, and chance."¹² Each comprises a portion of friction, the ubiquitous force on the battlefield. Within this climate, says Clausewitz: "Everything in war is very simple, but the simplest thing is difficult."¹³ Uncertainty is the common denominator in Clausewitz's climate of war. Unseen danger lurks everywhere on the battlefield and its unveiling is never convenient. The level of exertion in soldiers and leaders is difficult to gauge and is often misleading. Chance is chance. Martin Van Creveld observed that as long ago as Koniggratz and the Franco-Prussian

War, "the Germans came to regard confusion as the normal state
of the battlefield"¹⁴, and that they "accepted it as
inevitable and sought to circumvent the problem by putting heavy
emphasis on independent action by subordinate commanders and
even by individual men."¹⁵ Uncertainty in war was not only
inevitable, but it was perhaps intrinsic to the outcome. The
medium of battle, uncertainty, is present in victory as well as
in defeat.¹⁶

Clausewitz, Moltke, and van Creveld agree on the subject of
uncertainty in war; the German understanding of war reflects a
similar view. Friction, fog, and uncertainty preclude
prescriptive planning because once contact is made with the
enemy the plan will change, requiring subordinates to react.
Uncertainty implies that every battlefield situation could
require a different utilization of tactical principles.
Prescribed solutions imposed upon subordinates by higher
headquarters can be inappropriate and inhibit subordinate
initiative. Subordinates closest to the situation are better
equipped to deal with the immediate battlefield problem. The
institutionalization of this understanding of warfare was
exhibited in the German warfighting doctrine.

The essence of the German Army's understanding of warfare
was presented in the 1933 edition of German Field Service
Regulations, Truppenfuhrung, touted in 1935 by the Command and
General Staff School as "the most important manual of the German
Army."¹⁷ There are many compelling ideas within this German
"troop leading" manual, but perhaps the most striking feature is
the inclusion of an overarching, philosophy of war which

highlighted human potential on the battlefield. The following excerpts demonstrate this philosophy:

1. The conduct of war is an art, depending upon free, creative activity, scientifically grounded.
3. Situations in war are of unlimited variety. . . Friction and mistakes are of every day occurrence.
4. The teaching of the conduct of war cannot be concentrated exhaustively in regulations. The principles so enunciated must be employed dependent upon the situation.
5. War is the severest test of spiritual and bodily strength.
8. Mutual trust is the surest basis of discipline in necessity and danger.
9. Willing and joyful acceptance of responsibility is the distinguishing characteristic of leadership.
10. The emptiness of the battle field demands independently thinking and acting fighters... (18)

German understanding of war pits creativity, human strength, trust, and leadership against uncertainty, the common denominator in the friction-filled climate of war.

One other interesting feature of the 1933 Truppenfuhrung is the provision for the subordinate to alter the plan of his higher headquarters. Sun Tzu's comment that "when confronted by the enemy respond to changing circumstances and devise expedients"¹⁹ is integrated into Truppenfuhrung:

He who changes his mission or does not execute the one given must report his actions at once and assume all responsibility for the consequences. He must always keep in mind the whole situation. (20)

It was, in fact,

the duty of the subordinate to act upon his own initiative when his orders had become irrelevant due to changed circumstances...even if this meant acting in direct opposition to the orders. (21)

Taking it one step further, "the German Army made a virtue

of necessity. It stressed the independence and initiative of subordinate units." ²² The words "duty" and "virtue" were carefully chosen by the doctrinal authors. They are important to the professional soldier. Using these words personalized the task at hand and compelled the soldier to exploit his full potential to get the job done. Inaction was worse than oversight. Implied was the German officer's ability to understand the intent of the plan as articulated in the order and to divorce that intent from the task to be performed, when the situation called for him to do so. The intent was key, not necessarily the stated task or how the particular situation was resolved.

As a general rule, "the Prussian and German armies lacked a rigid structure or format for orders" ²³, the rationale being that formality could inhibit the creativity of the local commander. Informality placed the onus on the commander to clearly articulate his intent. There were times, however, when the commander's intent was accompanied by detailed instruction. Generally, this occurred when a particular operation required precision in terms of time, space, and procedure. It was also required when subordinates lacked sufficient training or experience to execute a mission order. When the commander felt the subordinate was capable of acting on his own, he stated only the purpose and objective of the mission and any requirement for coordination to facilitate the mission. In this way, Auftragstaktik encouraged thoughtful participation, it enhanced subordinates' self-confidence, and developed a sense of responsibility to act. This led to speed

of action conducted within the commander's intent.

Given the German understanding of war, a philosophy of war, and their inclusion in German Field Service Regulations one can surmise that the German Army set out to develop officers who were not afraid to accept risk in making decisions and who were accountable for their actions. It should also be clear by now that Auftragstaktik is not just a command and control system.

To describe Auftragstaktik as a 19th Century Prussian-German mind set does not do it justice, as it stirs up a negative connotation, perhaps of anti-intellectualism. On the contrary, the German Army encouraged intellectual development in all soldiers and the ability to make decisions independently, regardless of rank. Soldiers who demonstrated the requisite aptitude were developed into excellent soldiers and
25 independently thinking students of warfare. Auftragstaktik

has also been described as a century old life-style of aristocratic, Prussian-German officers. Fiercely independent, they were elitists with special rights and responsibilities who considered themselves modern day knights bound by a chivalrous
26 code of honor. Taken together, these descriptions of Auftragstaktik are representative of heritage, training, and attitude which became institutionalized within the German Army. Still others, however, have concluded that most Prussian officers developed a strong self-reliance due to a lack of centralized training and educational facilities in the German Army at that time. Consequently, commanders seriously undertook
27 their responsibility to train their subordinates.

Whether the motivation for Auftragstaktik was academic, or

aristocratic, or a result of limited training resources is irrelevant. It was undoubtedly a combination of factors. Significantly, Auftragstaktik was so comprehensive, so integral to the Prussian-German Army that it was difficult to separate it from the fabric of that society. There is further evidence of the all-encompassing nature of Auftragstaktik.

The German military bureaucracy complemented Auftragstaktik through the selection and training of officers, promotions, and assignment procedures. In the years from 1914-39, for example, the number of new officers coming into the German Army was constrained by the effects of World War I and later, the Treaty of Versailles. Those who did enter service were carefully selected and very well trained. Despite the dire straits in which the army found itself, the decision authority for accepting these young officer candidates still belonged to the regimental commander. Once accepted by the regiment, the officer candidate spent nearly four years training with troops and studying in service schools until he was promoted to lieutenant. This is a remarkable commentary on the degree of trust and the amount of responsibility bestowed upon the German officer.

The time and energy spent preparing lieutenants paid off. The emphasis on training and field service produced officers who were not only technically and tactically competent, but who understood how to lead and take care of soldiers. Maturity gained prior to promotion proved invaluable in dealing with all sorts of situations, particularly in the area of human relations.

The philosophy so evident in Truppenfuhrung (1933) and the influence of Auftragstaktik permeated the training and education of officers. Formal training in the German Army tried to build upon earlier exposure of young officers to Auftragstaktik and struck a balance between the study of theory and practice. Training emphasis integrated tactical application with the study of modern theory and military history.³⁰ A training application of great importance in the German Army was the use of kriegsspiele, or war games.

Kriegsspiele in the German Army included "war games proper, map exercises, staff exercises, training trips, tactical walks, command post and special exercises, and sand table exercises."³¹ Kriegsspiele was organized and directed through a series of unofficial manuals. The rationale for the use of unofficial manuals was to avoid any tendencies towards prescription and school solutions which an official publication might generate. In essence, the policy guaranteed free play during the exercise and allowed students opportunities to seek unique solutions to battlefield problems.³²

Frequently during training, senior commanders were replaced by subordinate commanders to simulate leader attrition and to give subordinates a feel for the command of larger units. This practice also provided subordinates practical knowledge of how a senior officer uses intent to guide subordinate actions on the battlefield - an indispensable skill to possess in the application of Auftragstaktik. Another technique used to train officers was to place them in realistic battlefield situations during map or field exercises. The officers were sometimes

required to take action given no orders to guide them through a particular situation or they might be required to disobey orders to solve a simulated battlefield problem. This put into practice, albeit in a training mode, what the Truppenfuhrung demanded: independently thinking and acting subordinates who willingly accepted risk and took responsibility for independent³³ decision-making.

Auftragstaktik's acceptance and encouragement of risk taking is yet another area which characterizes Auftragstaktik as more than just a command and control system. Trust between senior and subordinate is the key. This coupled with the German attitude towards risk taking facilitated Auftragstaktik. Auftragstaktik, in fact, exemplified trust up and down the chain of command. Taking risk and assuming responsibility for independent action, as Auftragstaktik purported, were essential. "Trust depends on a man's knowing that his commander thinks of him as a person and therefore treats him fairly, and³⁴ looks after him." Knowing that he has the support of his commander mitigates the subordinate's fear of failure and allows him to accept risk. Conversely, "the man who cannot bring himself to trust the judgment and good faith of other men cannot³⁵ command very long." Truppenfuhrung demanded action from

subordinates and compelled them to take risks within the framework of the commander's intent. It is this framework of intent that granted flexibility of action and simultaneously provided the subordinate a safety net should he fail. Success or failure, the subordinate was doing what needed to be done.

The 1933 Truppenfuhrung has long since passed into disuse,

but the understanding of war and the philosophy of war which it trumpeted are still heard today in military institutions of higher learning. A review of professional military journals and monographs indicates that this is the case.

Over the last twenty years, innumerable articles have been written about command and control. Many of them discuss the nuts and bolts of the German Army's tactical success during two world wars and attempt to apply this success in a modern context. Auftragstaktik is well represented in this consortium of command and control. When one sifts through the key elements, components, prerequisites, maxims, framework, essentials, and, yes, tenets of Auftragstaktik three major themes emerge.

The first is that the German understanding of war accepted uncertainty and relied upon the character of the German soldier to overcome adversity. Solutions to battlefield problems were sought in the human domain rather than the mechanical. German doctrine supported this understanding of war. A second theme is that Auftragstaktik was more than a means of tactical command and control on the battlefield. It extended throughout all aspects of military life and was nurtured from the top of the military hierarchy down to the lowest level. The third theme to emerge from these writings on Auftragstaktik is that of leader training. Commanders were trained to clearly articulate intent; subordinates were trained to be reliable in action; and all were trained to achieve a common understanding of tactics, techniques, and procedures. Eliminate any one of these three themes and something less than Auftragstaktik remains.

Auftragstaktik in the German Army was a reflection of that army's understanding of the nature of war. The command system established the parameters of individual initiative based upon this understanding of war. Realizing the unpredictable nature of war, the Germans pushed decision authority down to the lowest levels in order to gain speed of action and decision. Similarly, the U.S. Army's command and control doctrine is representative of its understanding of war. However, a historical perspective of the Army's command and control doctrine reveals that Americans have a different understanding of war resulting in a different concept of control and individual initiative.

III. Historical Perspective of U.S. Army C² Doctrine

The American understanding of war and warfighting doctrine were developed through past military experience. Russell F. Weigley says the "American ways of war were offshoots of European ways of war (with an) emphasis . . . toward less restraint in the conduct of war, in both means and ends." 36 He made this observation based upon his study of "wars between settlers and Indians (and concluded that) seventeenth and eighteenth century Americans came to conceive of war in more absolute terms than did their European contemporaries." 37 From the American point of view, complete or total victory required emphasis on the sufficient means to reach that end. Competent managers were therefore needed to orchestrate the means of war.

Established in 1802 by President Jefferson, the U.S. Military Academy was tasked to meet this need. The curriculum was predominately engineering. Graduates were in essence tasked to build a nation with their acquired skills. Military education occupied a secondary role and consequently, through much of the nineteenth century, the academy produced technicians rather than military professionals.³⁸ Although the military education may have lacked emphasis, the current military thought of Continental Europe was presented to cadets.

Jomini's writings infused cadets of the U.S. Military Academy with the subtleties of Napoleonic warfare just as the engineering curriculum focused the soon-to-be belligerents of the Civil War on the more technical aspects of warfare. Jomini's, and hence Napoleon's, influence was so dominant upon the American style of warfare that despite the lethality of the Civil War battlefield, Napoleonic tactics and concepts of warfare ruled the day. Consider the influence of the Grand Armee on American military thought. In conscript armies of the Napoleonic period, manpower was considered a resource to be expended. The contention was that whichever army had the most men and the best logistics would have the greatest opportunity to achieve victory.³⁹ This predisposition towards mass quantities of men, materiel, and weapons to overcome enemies of the United States is an often used strategy and provides a thread of continuity seen throughout American military history. It is commonly known as a strategy of attrition.

Napoleon further influenced American warfighting doctrine in the area of command and control. He practiced centralized

command and control. Napoleon's marshals were not privy to his overall strategy; this he kept to himself, allowing his subordinates only what they needed to know to conduct the operation. He alone controlled the engagement, from briefing the plan before the fight to the application and synchronization of combined arms during the fight. Napoleon did, however, recognize the effects of friction in war. Consequently, he allowed his corps commanders to use discretion while temporarily operating without his orders. This allowed them to deal with uncertainty until new orders were dispatched.⁴⁰

Notwithstanding his corps commanders' need to deal with the fog of war, Napoleon maintained a tight rein on their operations to fit his scheme through strict march orders and by limiting them to essential information.

Just as Napoleonic strategy and tactics transformed American military thought during the nineteenth century, the Industrial Revolution had an equally profound effect upon the American style of war. It provided the technological piece of the equation which eventually led to an attrition-firepower based warfighting doctrine. Fielding and equipping a mass army required a tremendous industrial base. As this base became more and more sophisticated, hardware solutions to battlefield problems were sought. Americans eventually determined that the use of machines made war less expensive. It became a cheap way of waging war.⁴¹ This conclusion was generated from the belief that "sheer weight of numbers and materiel (could)⁴² determine the outcome" of armed conflict and resulted in a strategy of attrition, which "has dominated American military

practice since at least the Civil War." ⁴³ As America moved into the twentieth century, U.S. Grant's strategy of attrition during the Civil War reminded the Army that it was the country's propensity to produce superior mass which achieved victory in war. ⁴⁴ An attrition based doctrine therefore emerged as a result of past military experience. Our Napoleonic heritage, preoccupation with mechanistic solutions from the Industrial Revolution, and our predisposition to substitute technology for numbers favor a system of centralized command and control on the battlefield.

The American style of warfare, based on a strategy of attrition, is attractive for its predictability and functional simplicity. Pure attrition warfare is comparable to an industrial enterprise bent on maximizing its profits. Preparation for war and the actual conduct of war are resource intensive and require competent management of these resources throughout all echelons of command. Furthermore, in attrition warfare all activities can be standardized by the bureaucracy except when it comes to troop leading where non-managerial techniques are appropriate. ⁴⁵ It is another premise of this paper that the American style of warfare is indicative of a centralized, managerial approach to war that ignores the aforementioned exception and attempts to extend this control down to the tactical level.

U.S. Army doctrine at the turn of the century continued to reflect the American style of warfare. The AEF went to Europe expecting to employ a mobile army to practice open-warfare. The Army's emphasis on "mobility and infantry firepower for

offensive operations shaped its training (as detailed) by the
Field Service Regulations maneuver warfare doctrine." ⁴⁶ Even
as the AEF slugged it out in the trenches, officers continued to
be trained in the nuances of open-warfare, a practice which put
them at a tremendous disadvantage once they reached a front
which was the antithesis of open-warfare. In August 1918,
General Headquarters (GHQ), AEF published a series of pamphlets,
filled with lessons learned, for distribution throughout the
AEF. These Combat Instructions and Notes on Recent Operations
concluded that "American attacks did not exploit fire and
maneuver but placed undue emphasis on the problems of direction,
frontages, and formations" ⁴⁷. This conclusion indicates that
tactical initiative was stifled by centralized control from
higher headquarters. Inflexible offensive operations and poor
use of the time available to plan these operations by higher
headquarters was also in evidence. ⁴⁸ The hoarding of decision
authority and planning time at higher levels, the attrition
style of warfare demonstrated by the AEF, and the nature of
trench warfare discouraged individual initiative and independent
operations despite a written doctrine to the contrary.

It is interesting to note the different approaches taken by
the belligerents to reduce the stalemate on the Western Front.
Characteristically, the United States sought solutions in
technology, e.g. better utilization of artillery, better means
of communications, and the introduction of the tank. Also
characteristically, the German approach was initiative based.
It resulted in infiltration tactics. The reestablishment of
battlefield mobility was the end sought by both sides, yet

because of differing philosophies of war, one side chose a mechanical solution and the other a human one. The contrasts in these opposing philosophies of war would become more evident in the pre-World World II warfighting doctrines.

A comparison of the Truppenfuhrung (1933), which remained in effect throughout World War II, with FM 100-5 (1941) reveals that the former was a decentralized doctrine intended for execution while the latter merely called for decentralized execution. Also apparent are two strikingly different approaches to warfare. Much of the verbiage contained in FM 100-5 (1941) was borrowed from Truppenfuhrung.⁴⁹

Significantly, however, FM 100-5 (1941) refrained from using the German philosophy of war upon which the regulations were based. The two, in fact, purport contrasting philosophies of war. Truppenfuhrung incorporates Clausewitz's idea that war is a clash of independent wills dominated by friction. The dual nature of war is clearly articulated in the German doctrine.

In the American doctrine, the enemy is described merely as a force disruptive to one's own operations, presumably much as the factors of weather and terrain can be impediments. The enemy is not given any credit for free play operations of its own. That American understanding of war seemingly disregarded friction and the duality of war is indicative of the Army's reliance upon overwhelming material superiority to achieve victory. An army that has more of everything than the enemy is not worried about what the enemy is doing. Efficiency of production guarantees success. The ability of the Army to fight was secondary to the nations' ability to resource the war.

Operations were subjugated to organizational and logistical considerations. The Germans, on the other hand, with less resource potential, relied instead upon their ability to

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fight. This de-emphasis of operations, the reliance upon overwhelming mass of men and materiel, a doctrine that purported to provide commanders "a firm basis for action in a particular situation," and a reference to the soldier as "the fundamental instrument in war" are representative of a doctrine of centralized command and control antithetical to

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Auftragstaktik.

A few years after World War II, a group of distinguished former Wehrmacht officers conducted an analysis of U.S. Army doctrine at the Army's request. Former Chief of the General Staff Franz Halder, a veteran of both the French and Russian campaigns, led the group. Their objective was to determine if the doctrine included the lessons of World War II. Prior to examining the American doctrine, they established some basic guidelines for any modern army's doctrine. Foremost in their minds was the requirement for a doctrine to educate. They asserted that only through understanding the nature of war could soldiers be expected to perform the tremendous tasks demanded of them on the battlefield. The philosophy so deftly woven throughout Truppenfuhrung (1933) was intended for this purpose. FM 100-5 (1941), although it borrowed heavily from

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Truppenfuhrung, did not include the philosophy portions. A philosophy of war did not appear in American doctrine until the 1982 edition of FM 100-5.

The group of former Wehrmacht officers also stressed that

doctrine must demand independent action from subordinates. This idea appears repeatedly throughout Truppenfuhrung (1933), whereas the American doctrine repeatedly tried to foresee situations and prescribe behavior to deal with these situations. The uncertainty of war, which the Germans recognized and accepted, is best handled by independent actors who understand the situation and are present to act. For American doctrine to foresee situations and to prescribe behavior steals a subordinate's independence to act in a particular situation.

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Finally, the group observed that the resource superiority demonstrated by the United States in two world wars, manifested itself in Army doctrine. The importance of surprise, maneuver, and improvisation in the doctrine was down-played in favor of activities which lent themselves to more centralized control. Surprise, maneuver, and improvisation all require subordinate initiative and decentralized control. American reliance upon a superior mass of men and materiel for victory naturally favored centralized control and this tendency was noticed during the German analysis of Army doctrine.

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Despite the borrowing of portions from Truppenfuhrung, the spirit of the German doctrine was not assimilated by the U.S. Army. The U.S. doctrine attempted to foresee situations on the battlefield, contained too much technical detail, and failed to address the independent responsibility of subordinate commanders. Failure to co-op individual initiative to reduce the effects of friction and failure to assign responsibility to subordinate commanders for independent operations were two

shortcomings characteristic of FM 100-5 (1941) which contradict sharply with a decentralized command and control system.

Although FM 100-5 (1941) called for initiative by subordinates, senior officers were often reluctant to relinquish control which further retarded the development of subordinates. As late as 1944, American general officers observed that junior officers lacked initiative and were reluctant to take

responsibility for their actions.⁵⁵ Soldiers given little freedom of action and the corresponding responsibility that goes with it is reflected in "American infantry manuals on minor tactics (which) were published in such exhaustive detail."⁵⁶

The broad front strategy of World War II and the tendency it created for centralized command and control had far reaching effects in the U.S. Army. The lack of confidence superiors had in subordinates and the doctrine which supported this mind set carried over into the American performances in Korea and Vietnam. This insidiousness reached a high point in FM 100-5 (1976).

Another veteran officer of World War II was equally skeptical of subordinates. General William E. DePuy, TRADOC commander and principle architect of FM 100-5 (1976), "emerged from (World War II) convinced that self-starters were rare in the U.S. Army but that detailed orders and thorough supervision by commanders could overcome this deficiency."⁵⁷ He concluded that American soldiers were reluctant to act without orders from higher headquarters. Only through detailed orders and specific instructions to all echelons of command could subordinates overcome this inertia to action. Consequently, as battalion

commander DePuy provided detailed plans down to squad level
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whenever possible. His experiences in Korea and Vietnam did
nothing to convince him otherwise.

The result of General DePuy's efforts, and that of the
senior leadership of the Army, was the active defense: "a
formulaic doctrine which exaggerated the mechanical aspects of
war, over stressed firepower, and totally suppressed the moral
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factors" which make up the heart of an initiative based
command and control system. Lower level initiative was impaired
by this doctrine that espoused a defensive mentality and an
overall strategy of attrition that required the Army to win the
first battle. Initial success was necessary to facilitate the
American style of war. The time gained by this success would
allow for the mass mobilization of men and materiel to reinforce
forward deployed forces.

Just as the ideas of General DePuy were shaped by his war
experience, today's senior leadership in the U.S. Army derived
its own notions of war from Vietnam. Lieutenant General Dave R.
Palmer asserts that the attrition style of warfare practiced by
the Army in Vietnam was a clear indication that the Army had no
strategy. The commander who resorts to attrition no longer
accepts war as an art and therefore rejects a thinking soldier's
philosophy of war. Instead, soldiers are merely resources to be
expended on the battlefield. As junior leaders in Vietnam,
today's senior leadership witnessed an insidious usurpation of
decentralized command and control by those senior to them. The
image of commanders from all echelons orbiting above the
besieged platoon leader in tiers of helicopters epitomized this

situation. It is a graphic example of centralized command and control and vividly characterizes the American style of warfare.⁶⁰ The resultant active defense doctrine in the years following Vietnam, which essentially ignored the moral dimension of war in favor of battle calculus and placed too much emphasis on the defense, was inevitable based upon the American understanding of war.

IV. AIRLAND BATTLE DOCTRINE AND AUFTRAGSTAKTIK

One would think that in the seven years since AirLand battle doctrine was introduced to the U.S. Army, supporting field manuals would reflect the capstone manual's outlook on warfighting. For the most part, this is so. A perusal of the chapters dedicated to command and control in the corps, division, battalion, and company level manuals is⁶¹ enlightening. While expressing overall integration with AirLand battle doctrine, there are two striking differences among all these manuals in the area of command and control.

There is a substantial difference between the command and control verbiage in light infantry manuals and that found in the tank and mechanized manuals. Each infantry manual has a section entitled "Philosophy" in the chapter on command and control which lays out an overarching philosophy for decentralized operations. Furthermore, the philosophy sections in each manual have a paragraph entitled "Mission Orders". A passage from the Light Infantry Battalion manual (FM 7-72) is representative of this philosophy:

Mission orders are fundamental to a flexible command and control system. The mission order results in directive control - control that provides a framework of what the commander wants done - not how it is to be done. Directive control is command based on tasks and purpose. The tasks combined with the situation equals a mission (who, what, when, where, and why). Directive control implies trust and mutual respect. Mission orders combined with intent allow units to respond with greater flexibility to react, speed of execution, and increased precision of mission execution at lower levels, such as company, platoon, and squad. The trade off in using mission orders is a decrease in certainty and control at higher levels for greater certainty regarding execution at the small unit level. (62)

There is no section on mission orders in the corps manual or the tank and mechanized manuals. The infantry manuals clearly come closest to replicating the spirit and substance of Truppenfuhrung (1933). Closely related to the concept of mission orders is that of directive control.

It was the intent of the authors of AirLand battle doctrine to adapt Auftragstaktik⁶³, wherein "subordinate leaders were trained to choose an alternate way, within their commander's intent, to execute a mission when the original way no longer made sense under changed combat conditions."⁶⁴ In Race to the Swift, Richard E. Simpkin translates Auftragstaktik to mean directive control.⁶⁵ Whereas the previously cited infantry manual, FM 7-72, discusses directive control in some detail, there is no mention of directive control in the tank and mechanized manuals.

The philosophy and mission order passages and use of the term, directive control, are conspicuous in their absence from the tank and mechanized manuals. J.F.C. Fuller's contention that "the more mechanized become the weapons with which we fight

the less mechanized must be the spirit which controls them" speaks to the reality of modern war and yet the opposite appears to be true in the Army's tank and mechanized forces. One could conclude from this omission that tank and mechanized infantry operations require more centralized command and control and hence, less decentralized execution. If this is so, then AirLand battle doctrine is being applied unevenly with respect to the Army's maneuver forces. If Auftragstaktik applies only to light infantry units, then a disconnect exists in a doctrine which clearly emphasizes mechanized operations in Europe.

The other difference which stands out among these manuals offers some insight into American understanding of Auftragstaktik. Only one of the field manuals develops a scenario which attempts to illustrate Auftragstaktik-like actions by a subordinate. The argument can be made that the use of such scenarios is prescriptive and provides so-called approved solutions. This may be so, but the point to be made here is the understanding of Auftragstaktik which this particular scenario projects. It occurs in FM 71-2, The Tank and Mechanized Infantry Battalion Task Force.

As the battle develops, the security force identifies the main effort against the middle company sector. The enemy's attack is initially blunted by the company defending this sector, which causes the enemy to lose his momentum. The left flank team commander sees an opportunity to counterattack from the flank to destroy the enemy force. Taking this initiative is within the battle framework established by the task force commander's intent. The team commander is authorized to attack if an opportunity presents itself. (67)

Viewed through an American warfighting lens, this scenario appears to grasp the essence of Auftragstaktik. As mentioned

previously, FM 71-2 omits any discussion of a command and control philosophy or mission orders which weakens the case for Auftragstaktik in this particular scenario. A subordinate commander operating in an Auftragstaktik environment would consider it his duty to attack if the situation warranted such action. To say that a certain action is authorized takes the impetus for action out of the subordinate's hands and negates subordinate responsibility for action. By definition, an authorized action is one which is prescriptive in nature. The distinction here may be a subtle one, but many of the nuances of Auftragstaktik are indeed subtle.

The preceding discussion offers further evidence of contradictions within the Army's warfighting doctrine, particularly in the area of command and control. Auftragstaktik, a critical part of AirLand battle doctrine, is not embraced by the Army it was meant to serve. While apparently accepted by the light infantry community, the modern mechanized community has neglected to emphasize the very concept included in AirLand battle doctrine to overcome the friction and uncertainty encountered in modern mechanized warfare.

V. THE IMPACT OF SENIOR LEADERS

To change the thinking of the Army's senior leadership is a difficult, yet required step towards Auftragstaktik, but it alone is not enough. A fundamental impediment exists to the adoption of Auftragstaktik. Not only is Auftragstaktik literally a foreign concept to the American military, it is a

misunderstood one when viewed through the American warfighting lens.

Returning for a moment to General DePuy, he in a sense personifies the contradiction in the Army's warfighting doctrine since World War I. To varying degrees, the Army's Field Service Regulations of 1918, FM 100-5 (1941), and FM 100-5 (1976) all specify a need for subordinate initiative and decentralized execution. General DePuy thought very highly of German World War II doctrine, specifically the infiltration tactics and the indirect approach. This doctrine could only be executed by subordinates trained to conduct independent operations. He, in fact, set out to incorporate the best of German tactical doctrine in the Army's post Vietnam era doctrine. ⁶⁸ His leadership style, however, was diametrically opposed to the execution of such tactics. His words did not match his deeds. Similarly, the doctrines of the Army since World War I state that subordinate initiative and decentralized execution are required, but the deeds of senior leaders say the opposite. The tension which develops between word and deed is debilitating to subordinate initiative and Auftragstaktik.

Senior leader understanding for Auftragstaktik is a different issue entirely. A recent example of a senior leader not demonstrating a complete understanding of Auftragstaktik was witnessed by the 1988-89 Command and General Staff College (C&GSC) class during a guest speaker presentation. Responding to a question regarding what the senior leadership of the Army was doing to institutionalize Auftragstaktik, a visiting Army general stated that Auftragstaktik was inconsistent with his way

of conducting operations, as he did not want division commanders deciding when to cross a line of departure. To dismiss the potential of Auftragstaktik in such a manner reflects not only a misunderstanding of the concept, but a rejection of the one ingredient essential to making AirLand battle doctrine a reality. Curiously, the 1989-90 C&GSC class has had no required readings on the subject of Auftragstaktik, whereas the 1988-89 class was required to read two monographs on the subject as part of the basic tactics instruction. ⁶⁹ A final premise of this discussion is that senior leaders exercise "life and death" control over initiative, and hence Auftragstaktik.

An important function of senior leadership is the establishment and maintenance of the Army's organizational climate. A climate favorable for the institutionalization of Auftragstaktik must be achieved to facilitate this decentralized command and control system. Results of the 1970 Army War College Study on Military Professionalism, the 1979 Army Professionalism Study, and the 1985 Professional Development of Officers Study indicate some fundamental stumbling blocks in the acceptance of Auftragstaktik in the U.S. Army. This resistance amounts to deep seeded inertia towards decentralization. Interestingly, the forces needed to make Auftragstaktik a reality in the Army are the same ones which prevent it from taking root. Organizational theory suggests that the process of institutionalization, which diffuses power throughout an organization and creates a sense of ownership amongst employees, ⁷⁰ is not often sponsored by the organization. The prospect of institutionalizing Auftragstaktik in the Army has reached this

impass.

The insertion of Auftragstaktik in the Army's warfighting doctrine represents a dramatic departure from our previous command and control modus operandi. However, the creation of a new doctrine, force structure, and the fielding of new equipment in the last seven years are futile efforts unless accompanied by a major effort to change the thinking within the Army. The aforementioned studies reveal major shortcomings within the officer corps of the Army, deficiencies which must be overcome if Auftragstaktik is to have a chance for acceptance.

An important pillar of Auftragstaktik in the German Army was that of trust between senior and subordinate. Senior officers had to trust their subordinates to take appropriate action. Indeed, Truppenfuhrung (1933) recognized the importance of trust up and down the chain of command:

The officer must... find the way to the hearts of his subordinates and gain their trust through an understanding of their feelings and thoughts and through never ceasing care of their needs. Mutual trust is the surest basis of discipline in necessity and danger. (71)

In 1986, a U.S. Army general noted that "we (general officers)...occasionally practice what we preach, but all in all we're gripped by our collective distrust of our people."⁷²

Although this is an alarming admission, evidence of this lack of trust in the Army is not difficult to find. Over the years, the Army's proclivity towards centralization has diminished the power of company commanders. The human link between commander and soldier, which included such interpersonal functions as pay, promotion, training, maintenance, supply, and company

administration has been replaced by a data link to higher headquarters. Centralized management systems and modern communications combined to weaken an age old bond and have reduced the company commander's sense of responsibility for the subordinate.⁷³ The centralization process has had yet another effect. The message sent to company commanders, be it overtly or otherwise, is an "implied questioning of the competence of the tactical leaders into whose hands we have relegated the prosecution of the decentralized Airland battle."⁷⁴ Once again, what is said does not match what is done.

In 1985, an Army-wide survey entitled the Professional Development of Officers Study was conducted. Forty-nine percent of respondents in the grades from lieutenant to colonel replied that "the bold, original, creative officer cannot survive in today's Army."⁷⁵ One quarter of the general officers who responded agreed with this statement. Lieutenant General Julius Becton, Jr. was in agreement with this when he said that "unfortunately, across the board, the system does not support risk-takers."⁷⁶ Presumably, many of the officers who responded to the survey were bold, original, and creative; many others probably had the potential to demonstrate these qualities. Ideally, each of the officers who responded will be counted on to execute AirLand battle doctrine. For nearly half of the officers surveyed to respond in such a manner and for that many general officers to agree should cause some concern. One of the findings of this study points to the Army's organizational climate as the instigator of this criticism.

Organizational climate "represents the collective impact of

policies, expectations, priorities, operating values, management techniques, and leadership styles on motivation to get the job done right." ⁷⁷ If Auftragstaktik is to survive its transplant into the Army, it will be because the Army has developed an organizational climate conducive to Auftragstaktik. Just as Auftragstaktik permeated the German Army to create an extremely effective organizational climate, a similar holistic approach must be taken in the U.S. Army. Unfortunately, the Army is not yet ready to make this transformation.

In his 1987 review of the Army's senior leadership doctrine, then Lieutenant General (LTC) Walter F. Ulmer, Jr. suggested three possibilities for dysfunctional organizational command climates within the Army. The first is that the Army produces a continual line of colonels and generals who are not interested in creating a functional command climate. There will always be senior officers whose ambition compels them to focus on short term aggrandizement rather than long term development of a professional organizational climate. They have other ⁷⁸ priorities and operate from different agendas.

Secondly, "our senior leadership, while mostly solid, has a good share of well-intentioned non-leaders who cannot - by virtue of their personality, limited capacity for trust, lack of self-confidence, or improper definition of success - perform at the executive level." ⁷⁹ The aforementioned Army-wide surveys, particularly the acclaimed 1985 Professional Development of Officers Study, are indicative of this assertion. An organizational climate conducive to Auftragstaktik needs the sponsorship of the Army's senior leadership.

Lastly, senior leaders are not trained to create a functional organizational climate. The Army's senior leadership doctrine takes aim at this shortcoming.⁸⁰ It is, undoubtedly, a combination of these situations and others which create difficulties in organizational climate and impede Auftragstaktik. Support for Auftragstaktik must be top driven, for without participation from the upper echelons of the Army it simply will not work.

Former Chief of Staff, General Edward C. Meyer, recognized the centralized control which exists in the Army. He further recognized that AirLand battle doctrine would require some fundamental philosophical changes in the area of command and control. To study this problem, an unprecedented program was conducted at Fort Hood which resulted in a philosophy and program of implementation. The program approached the comprehensive nature of Auftragstaktik. Its purpose was simply to get the senior leadership of III Corps and Fort Hood to allow decision authority and subordinate leader initiative to be employed at the most appropriate echelon of command.⁸¹ The program was both highly successful and controversial. Designed to facilitate AirLand battle doctrine in much the same manner as the authors of FM 100-5 intended Auftragstaktik, the "power down" philosophy of Fort Hood, now seven years old, has not been universally accepted by the U.S. Army. Lessons learned from the program offer some evidence as to why this is so.

Most, if not all of the lessons learned from the Fort Hood experience point towards the requirement of leaders, particularly senior leaders, to nurture the "power down"

philosophy.

- o Goals, objectives, expectations, and standards must be clearly stated.

- o Human and leadership goals and objectives have a greater probability for success when the upper echelon in the chain of command is psychologically enrolled.

- o Trust and confidence are built by action not by edict.

- o Power Down must start at the top.

- o Micromanagement disrupts Power Down.

- o Power Down can be blocked at any level.

- o Trust must be exercised in both directions.

- o Freedom to act must include freedom to fail.

- o Freedom to fail must have limits.

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The lessons of the Fort Hood study are applicable to the Army. Implicit in such a command and control philosophy is that it must be exercised on an Army-wide basis to be most effective.

Today, there is little evidence to suggest that "power down" exists outside the confines of Fort Hood. Since LTG Ulmer's departure from Fort Hood and subsequent retirement from the Army, enthusiasm for this philosophy has subsided, although the infrastructure at Fort Hood designed to sustain the effort remains in place.⁸³ If the program proved anything, it demonstrated that the senior leader can make a difference, as LTG Ulmer certainly did at Fort Hood.

As suggested by the lessons learned from the Fort Hood program, the Army's interest in "power down" has degenerated from lack of support from the top. How can the Army even contemplate institutionalizing Auftragstaktik when it cannot accept a home grown version? One can conclude that the

peacetime Army is not serious about decentralized command and control and therefore not serious about implementing its warfighting doctrine.

VI. CONCLUSION

AirLand battle doctrine is state of the art. Its success depends upon the application of sophisticated technologies to the battlefield. Overlooked, is its reliance upon decentralized command and control. Previous Army doctrines have recognized the need for decentralized command and control and subordinate initiative. The authors of FM 100-5 (1982) saw a need for much more than this and introduced the concept of Auftragstaktik to the Army. It was an idea that was as much revolutionary as it was foreign to an American Army beginning to shake off the wraps of Vietnam and one looking for a doctrine more offensive minded than the active defense. The senior leadership of the Army determined Auftragstaktik best suited to provide the engine needed to drive AirLand battle doctrine.

The best of intentions, however, are often ill suited to accomplish the task at hand. Despite its obvious advantages, the U.S. Army cannot "employ" Auftragstaktik. It is not something that can be requisitioned so easily. Our Army is too big, demographically and socially diverse, and disjointed in outlook to switch to a mind set which took the Germans hundreds of years to develop. So much of Auftragstaktik was rooted in German culture that we cannot hope to replicate it. It cannot be done. Perhaps this is why the general visiting C&GSC

coffed at Auftragstaktik in the American Army. So where does that leave us? Can the Army execute AirLand battle doctrine without the benefits of Auftragstaktik?

The nature of modern war, although susceptible to technological breakthroughs, will not change any time soon. And because of this, AirLand battle doctrine will still require decentralized execution, individual initiative, but most importantly, the organizational climate necessary to nurture such behavior. What it comes down to is individual internalization of, and chain of command support for, the essence of Auftragstaktik. Our doctrine, for the most part, is well written. But the written word changes nothing without the actions to back it up. It is as much a leadership challenge as it is an operational one.

What remains transitory is the peacetime political environment in which the Army must operate. More is not always better. The Army today is facing the most dramatic cuts in budget, personnel, and force structure since the end of World War II. These reductions could result in greater centralized control to protect limited resources needed to meet unchanged or increased mission requirements. The Army's current bureaucratic apparatus is designed to handle a large Army. Much, if not all of that apparatus will remain in place despite fewer personnel and organizations to manage.

Conversely, the cuts could facilitate an opportunity for the Army to decentralize control at all levels and to approach Auftragstaktik. A smaller Army could produce qualitative improvements in the force, as the proverbial fat is trimmed.

The key to which direction the Army moves regarding control will be determined by the organizational climate that emerges from the impending reductions. The senior leadership of the Army will establish this climate. A climate conducive to Auftragstaktik was not created following the introduction of AirLand battle doctrine in 1982, but perhaps an organizational and fiscal shakeup of the impending magnitude will provide the impetus for positive change.

An army's doctrine is inseparable from its past and a reflection of its environment. The American style of war since the Civil War has been one of attrition. Overwhelm the enemy with industrial, economic, and military might. To manage this tremendous capacity to wage wars of attrition, the Army exercises centralized control. Army doctrine, however, has mandated decentralized command and control, subordinate initiative, and independent action. The senior leadership of the Army adapted Auftragstaktik to our warfighting doctrine to facilitate execution of AirLand battle doctrine. To date, Auftragstaktik has not been institutionalized in the Army. Attempts by the Army to move towards Auftragstaktik have fallen by the wayside. Why is this so?

The Army's centralized control and attrition style of warfare are not conducive to decentralized operations. The senior leadership of the Army, the same leadership that wanted Auftragstaktik in AirLand battle doctrine, does not uniformly sponsor the behavior required for decentralized command and control. An Auftragstaktik organizational climate must extend from top to bottom. Calling for initiative at all levels, but

practicing centralized command and control begets centralized control at lower levels, fear of failure, distrust, and a zero defects environment. Auftragstaktik is what is needed to execute AirLand battle doctrine. Intuitively, the two are an ideal complement. Enter reality, and Auftragstaktik becomes an impossibility for the U.S. Army. If, "we can't get there from here," then movement towards Auftragstaktik is the next best solution.

VII. RECOMMENDATION

The path towards Auftragstaktik will be a difficult one for the U.S. Army, for the Army today is set in its collective ways. There are no easy, short term fixes. A major shakeup is necessary. Impending reductions, cutbacks, and down-sizing will certainly affect the physical signature of the Army, but what of its mentality? Throughout the Army's history, physical atrophy has been accompanied by intellectual stagnation and, hence, unpreparedness for war. There is an opportunity, here and now, for the Army to take great strides towards Auftragstaktik. Leadership and education are key to the Army's realization of this transformation.

One of the findings of the Fort Hood study indicated that "power down" could be blocked by leaders at any level. Similarly, the spirit of Auftragstaktik must be facilitated at each level of command and nurtured from the top down. The senior leadership of the Army must accept and exercise Auftragstaktik in order for it to be accepted and exercised down

to the tactical level. Auftragstaktik should have no greater advocates than the Army's senior leaders; it is, after all, an integral part of AirLand battle doctrine. The visiting general officer who participated in the C&GSC guest speaker program last year was certainly not on board with this notion. Since the advent of AirLand battle doctrine, much has been written about Auftragstaktik in professional journals by junior and field grade officers. Several monographs have addressed the subject as well. It would be illuminating to see in print the comments of currently serving general officers regarding the role of Auftragstaktik in AirLand battle doctrine. Their participation in such a dialogue is essential.

The other key to the Army's acceptance of Auftragstaktik is education. The Army school system must become the proponent for initiative education. It must be a comprehensive program integrated throughout the curriculum, day in and day out. Each level of schooling in the officer education process could easily afford to double, if not triple, the time and effort devoted to tactical problem solving. The education of officers must be continued, reinforced, and complemented within their units by the chain of command. As for competing demands on time, what is more important than the execution of the Army's warfighting doctrine? If Auftragstaktik facilitates this execution, it must be given top priority.

Enlightened leadership and a comprehensive education system are essential to the Army's incorporation of Auftragstaktik. What could not be realized during times of plenty may find more fertile ground as the Army learns to practice frugality.

ENDNOTES

1. John L. Romjue, From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982, TRADOC Historical Monograph Series (Fort Monroe: United States Army Training and Doctrine Command, 1984), p. 58-59.
2. Hew Strachan, European Armies and the Conduct of War (London: George Allen & Unwin, 1983), p. 98.
3. Harry G. Summers, Jr., "To Provide for the Common Defense", Parameters (September 1982).
4. See James Schneider, "The Theory of the Empty Battlefield," RUSI (September 1987).
5. John A. English, A Perspective on Infantry (New York: Praeger, 1984), p. 75.
6. Sun Tzu, The Art of War, trans. Samuel B. Griffith (New York: Oxford University Press, 1982), p. 112.
7. Martin L. van Creveld, Command in War (Cambridge: Harvard University Press, 1985), p. 170.
8. Ibid.
9. Creveld, Command in War, p. 306.
10. William DePuy, "Generals Balck and Von Mellenthin on Tactics: Implications for NATO Military Cooperation," (Defense Technical Information Center, Alexandria, VA), p. 19.
11. Guenther Blumentritt, The Old German Army of 1914 and the New German Army of 1939: A Comparative Study, trans. M. Otto, report prepared for the Historical Division, European Command, 1947, p. 22.
12. Carl von Clausewitz, On War, trans. M. Howard and P. Paret (Princeton: Princeton University Press, 1984), p. 104.
13. Ibid, p. 119.
14. Creveld, Command in War, p. 169.
15. Ibid, p. 183.
16. Ibid, p. 270.
17. German Army, Truppenfuhrung, trans. of Part I prepared by The Command and General Staff School Press, 1936, p. "FORWARD".

18. Ibid, p. 1.
19. Sun Tzu, The Art of War, p. 70.
20. German Army, Truppenfuhrung, p. 8.
21. David J. Hughes, "Auftragstaktik" (unpublished paper for Brassey's of London, Fort Leavenworth, KS, 1989), p. 7.
22. Strachan, p. 124.
23. Hughes, p. 8.
24. Albert Kesselring, Small Unit Tactics, trans. report prepared for the Historical Division, European Command, 1950, p. 29.
25. English, A Perspective on Infantry, p. 144.
26. Hughes, p. 17.
27. Ibid, p. 18.
28. Blumentritt, The Old German Army of 1914 and the New German Army of 1939: A Comparative Study, p. 36.
29. Guenther Blumentritt, Miscellaneous Military Problems, trans. Hecht, report prepared for the Historical Division, European Command, 1952, p. 22.
30. Hughes, p. 9.
31. Rudolf Hofmann, War Games, trans. P. Luetzkendorf, report prepared for the Historical Division, European Command, 1952, p. 1.
32. Ibid, p. v.
33. Hughes, p. 10.
34. Richard Holmes, Acts of War (New York: The Free Press, 1985), p. 359.
35. S.L.A. Marshall, Men Against Fire: The Problem of Battle Command in Future War (Gloucester: Peter Smith, 1978), p. 189.
36. Russell F. Weigley, "American Strategy from its Beginnings through the First World War," in Makers of Modern Strategy, ed. Peter Peret, 3rd ed. (Princeton: Princeton University Press, 1986), p. 408-9.
37. Ibid, p. 409.
38. Ibid, p. 414.

39. Donn A. Starry, "A Perspective on American Military Thought," Military Review, July, 1989, p. 4.
40. Crevelld, Command in War, p. 87, 101 and Mikhail Tukhachevskiy, New Problems in Warfare (Carlisle Barracks: Art of War Colloquium, 1983), p. 62.
41. Barry D. Watts, The Foundations of U.S. Air Doctrine: The Problem of Friction in War (Maxwell Air Force Base: Air University Press, 1984), p. 105.
42. James Fallows, National Defense, (New York: Random House, 1981), p. 26.
43. Ibid.
44. Weigley, p. 440.
45. Edward N. Luttwak, "The Operational Level of War," International Security, Volume 5, Winter, 1980-81, p. 64.
46. Allan R. Millett, "Cantigny," in America's First Battles: 1776-1965, ed. Charles E. Heller and William A. Stofft, 1st ed. (Lawrence: University Press of Kansas, 1986), p. 153.
47. Ibid, p. 180.
48. Ibid, p. 181.
49. Martin van Crevelld, Fighting Power: German and U.S. Army Performance, 1939-1945 (Westport: Greenwood Press, 1982), p. 38.
50. Ibid, p. 36-7.
51. Ibid, p. 31.
52. Franz Halder, Review of Field Service Regulations, trans. by the US Army, study prepared for the US Army Historical Division, 1953, p. 1-2.
53. Ibid.
54. Ibid.
55. English, A Perspective On Infantry, p. 133.
56. Ibid.
57. Paul H. Herbert, DePuy and the 1975 Edition of FM 100-5, Leavenworth Papers No. 16 (Fort Leavenworth: Combat Studies Institute, 1988), p. 16.

58. Ibid.
59. Romjue, p. 53.
60. Dave R. Palmer, Summons of the Trumpet, (New York: Ballantine Books, 1978), p. 148, 180.
61. U.S. Department of the Army, Corps Operations, Field Manual (FM) 100-15, September 1989; Division Operations, FM 71-100, 15 November 1988; The Tank and Mechanized Infantry Battalion Task Force, FM 71-2, September 1988; Light Infantry Battalion, FM 7-72, March 1987; Tank and Mechanized Infantry Company Team, FM 71-1, 22 November 1988; Light Infantry Company, FM 7-71, August 1987 (Washington, D.C.: U.S. Government Printing Office).
62. Field Manual 7-72, p. 2-4.
63. Romjue, p. 58.
64. Ibid, p. 59.
65. Richard E. Simpkin, Race to the Swift (London: Brassey's Defence Publishers, 1985), p. 229.
66. William R. Richardson, "Training for Maneuver Warfare," Armor, July-August 1981, p. 32.
67. Field Manual 71-2, p. 4-32.
68. Herbert, p. 16.
69. U.S. Army Command and General Staff College, P116 (Combat Operations) Selective Readings for School Year 1988-89 contained two monographs about Auftragstaktik: "Tactical Implications of the Adoption of Auftragstaktik for Command and Control on the Airland Battlefield," by John W. Vermillion; and Auftragstaktik: "A Case for Decentralized Battle," by John T. Nelson II. Selective Readings for School Year 1989-90 contained no readings on the subject.
70. Barry R. Posen, The Sources of Military Doctrine (Ithaca: Cornell University Press, 1984), p. 59.
71. Truppenfuhrung, p. 1.
72. Walter F. Ulmer, Jr., "Leaders, Managers, and Command Climate," Armed Forces Journal International, July 1986, p. 54.
73. Roger H. Nye, The Challenge of Command (Wayne, New Jersey: Avery Publishing Group Inc., 1986), p. 26.

74. Ulmer, p. 55.

75. Benjamin F. Schenmer, "Internal Army Surveys Suggest Serious Concerns About Army's Senior Leaders," Armed Forces Journal International, May 1985, p. 18.

76. Nick Kotz, "Where Have All The Warriors Gone?", The Washingtonian, July 1984, p. 130.

77. Walter F. Ulmer, Jr., "The Army's New Senior Leadership Doctrine," Parameters, December 1987, p. 10.

78. Ibid, p. 12.

79. Ibid, p. 12-13.

80. Ibid, p. 13.

81. Center for Army Leadership, "The Fort Hood Leadership Study," Lessons Learned (Fort Leavenworth: U.S. Army Command and General Staff College, 1987), p. 1, 4. This paper is a condensed version of the "Fort Hood Leadership Study," prepared on 31 December 1985 for HQDA by the Essex Corporation. The following disclaimer appears on page 1 of the paper: "The views, opinions, and findings contained in this report are those of the author(s) and should not be construed as an official Department of Defense position, policy, or decision unless so designated by other official documentation."

82. Ibid, p. 13-16.

83. Ibid, p. 22.

BIBLIOGRAPHY

Bellamy, Chris. The Future of Land Warfare. New York: St. Martin's Press, 1987.

Blumentritt, Guenther, General der Infanterie. The Dangers of Operational and Tactical "Systems". Edited by A. Hall. Trans. H.J. Baerwaldt. Report prepared for the Historical Division, European Command, 1948. Document Number MS # C-009.

_____. Miscellaneous Military Problems. Edited and translated by the US Army. Report prepared for the Historical Division, European Command, 1952. Document Number MS # B-655.

_____. The Old German Army of 1914 and the New German Army of 1939: A Comparative Study. Translated by M. Otto. Report prepared for the Historical Division, European Command, 1947. Document Number MS # B-296.

_____. Special Work, Out of Schedule: The Modern Professional Officer's Training in Peacetime. Translated by M. Otto. Report prepared for the Historical Division; US Army, Europe; 1947. Document Number MS # B-651.

_____. Technique of Command. Translated by the US Army. Report prepared for the Historical Division; US Army, Europe, 1947. Document Number MS # B-303.

Clausewitz, Carl von. On War. Princeton, New Jersey: Princeton University Press, 1984.

Crevel, Martin van. Command. Washington, D.C.: Office of the Secretary of Defense/Net Assessment, Undated.

_____. Command in War. Cambridge: Harvard University Press, 1985.

_____. Fighting Power: German and US Army Performance, 1939-1945. Westport: Greenwood Press, 1982.

DePuy, William. "Generals Balack and Von Mellenthin on Tactics: Implications for NATO Military Cooperation." Alexandria: Defense Technical Information Center, 1980.

Doughty, Robert A. The Evolution of US Army Tactical Doctrine, 1946-1975. Leavenworth Papers No. 1; Fort Leavenworth: Combat Studies Institute, 1979.

English, John A. A Perspective On Infantry. New York: Praeger, 1984.

Fallows, James. National Defense. New York: Random House, 1981.

German Army. Truppenfuhrung. Translation of Part I by the US Army; The Command and General Staff School Press, Fort Leavenworth, 1936.

Halder, Franz. Review of Field Service Regulation. Translated by the US Army; US Army Historical Division Study, 1953. Document Number MS # P-133.

Herbert, Paul H. DePuy and the 1976 Edition of FM 100-5. Leavenworth Papers No. 16; Fort Leavenworth: Combat Studies Institute, 1988.

Hofmann, Rudolf. War Games. Translated by P. Luetzkendorf, report prepared for the Historical Division, European Command, 1952.

Holmes, Richard. Acts of War. New York: The Free Press, 1985.

Kesselring, Albert, Generalfeldmarshall. Small Unit Tactics. Translated by the US Army; report prepared for the Historical Division, European Command, 1950.

Marshall, S.L.A. Men Against Fire: The Problem of Battle Command in Future War. Gloucester: Peter Smith, 1978.

Millett, Allan R. "Cantigny," in America's First Battles: 1776-1765. Lawrence: University Press of Kansas, 1986.

Nelson, John T., III. "Where to Go From Here?: Considerations for the Formal Adoption of Auftragstaktik by the US Army." Monograph, School of Advanced Military Studies. Fort Leavenworth: US Army Command and General Staff College, 1986.

Nye, Roger H. The Challenge of Command. Wayne, New Jersey: Avery Publishing Group, Inc., 1986.

Palmer, Dave R. Summons of the Trumpet. New York: Ballantine Books, 1978.

Posen, Barry R. The Sources of Military Doctrine. Ithaca: Cornell University Press, 1984.

Rendulic, Lothar, Generaloberst. Combat Orders. Translated by the US Army; report prepared for the Historical Division, European Command, 1947. Document Number MS # D-268.

- _____. The Command Decision. Translated by M. Bauer. Report prepared for the Historical Division, European Command, 1947. Document Number MS # D-080a.
- Romjue, John L. From Active Defense to Airland Battle. TRADOC Historical Monograph Series. Fort Monroe: US Army Training and Doctrine Command, 1984.
- Schneider, James. "The Theory of the Empty Battlefield," RUSI, September, 1987.
- Simpkin, Richard B. Race to the Swift. London: Brassey's Defence Publishers, 1985.
- Strachan, Hew. European Armies and the Conduct of War. London: George Allen & Unwin, 1983.
- Summers, Harry G., Jr. On Strategy: A Critical Analysis of the Vietnam War. New York: Dell Publishing Company, Inc., 1982.
- Sun Tzu. The Art of War. London: Oxford University Press, 1971.
- Tukhachevskiy, Mikhail. New Problems in Warfare. Carlisle Barracks: Art of War Colloquium, 1983.
- US Army. Field Circular 71-6, Battalion and Brigade Command and Control. Fort Benning: US Army Infantry School, 1985.
- _____. Field Manual 7-71, Light Infantry Company. Washington, DC: US Government Printing Office, 1987.
- _____. Field Manual 7-72, Light Infantry Battalion. Washington, DC: US Government Printing Office, 1987.
- _____. Field Manual 22-103, Leadership and Command at Senior Levels. Washington, DC: US Government Printing Office, 1987.
- _____. Field Manual 71-1, Tank and Mechanized Infantry Company Team. Washington, DC: US Government Printing Office, 1988.
- _____. Field Manual 71-2, The Tank and Mechanized Infantry Battalion Task Force. Washington, DC: US Government Printing Office, 1988.
- _____. Field Manual 71-100, Division Operations. Washington, DC: US Government Printing Office, 1988.
- _____. Field Manual 100-5, Field Service Regulations: Operations. Washington, DC: US Government Printing Office, 1944.

- _____. Field Manual 100-5, Operations. Washington, DC: US Government Printing Office, 1976, 1982, 1986.
- _____. Field Manual 100-15, Corps Operations. Washington, DC: US Government Printing Office, 1989.
- _____. "National Training Center: Lessons Learned." Commander's Memorandum signed by Brigadier General E.S. Leland, Jr. Fort Irwin, California: National Training Center, 20 November 1985.
- _____. P118 (Combat Operations) Selective Readings. Fort Leavenworth: US Army Command and General Staff College, 1988.
- _____. P118 (Combat Operations) Selective Readings. Fort Leavenworth: US Army Command and General Staff College, 1989.
- _____. "Report of the Fort Hood Leadership Study." Paper prepared by the Center for Army Leadership summarizing the details of a larger report by the Essex Corporation under contract to the US Army. Fort Leavenworth, Kansas: US Army Command and General Staff College, August 1986.
- _____. The Principles of Strategy for an Independent Corps or Army in a Theater of Operations. Fort Leavenworth: US Army Command and General Staff School Press, 1936.
- _____. Training, Maintenance, Leadership: III Corps Commander's Handbook. Fort Hood: III Corps, 1982.
- Vermillion, John M. "Tactical Implications of the Adoption of Auftrags-taktik for Command and Control on the Airland Battlefield." Monograph, School of Advanced Military Studies. Fort Leavenworth: US Army Command and General Staff College, 1985.
- Watts, Barry D. The Foundations of US Air Doctrine: The Problem of Friction in War. Maxwell Air Force Base: Air University Press, 1984.
- Weigley, Russell F. "American Strategy from its Beginnings through the First World War." Makers of Modern Strategy. Princeton: Princeton University Press, 1986.

PERIODICALS

- Askew, Donald C. "Military Management: The Future in Retrospect." Parameters, June 1989, p. 38-45.

- Clark, Thomas G. "Leadership Doctrine for the Airland Battle." Armor, May-June, 1988, p. 32-34.
- "German Training and Tactics: An Interview With COL Pestke." Marine Corps Gazette, October 1983, p. 58-65.
- Jones, Archer. "The New FM 100-5: A View From the Ivory Tower." Military Review, February 1978, p. 27-36.
- Kaufman, Lynn W. "Initiative in the US Soldier." Military Review, November 1986, p. 45-54.
- Kotz, Nick. "Where Have All The Warriors Gone?" The Washingtonian, July 1984, p. 80-135.
- Lardent, Charles L. "Top Leadership Needs to Encourage Creativity." Army Times, 18 June 1984, p. 19.
- Lind, William S. "FM 100-5 Operations: Some Doctrinal Question for the United States Army." Military Review, March 1977, p. 54-65.
- _____. "The Changing Face of War: Into the Fourth Generation." Military Review, October 1989, p. 2-11.
- Lossow, Walter von. "Mission-Type Tactics versus Order-Type Tactics." Military Review, June 1977, p. 87-98.
- Luttwak, Edward N. "The American Style of Warfare and the Military Balance." Survival, January-February 1979, p. 57-60.
- _____. "The Operational Level of War." International Security, Winter 1980-81, p. 61-79.
- Majewski, Norbert and Peyton, John H. "German Army General Staff Officer Training." Military Review, December 1984, p. 23-34.
- "Mission - Oriented Command and Control." Armor, January-February 1981, p. 12-16.
- Newell, Clayton R. "Operating in the 21st Century." Military Review, September 1986.
- _____. "The Technological Future of War." Military Review, October 1989, p. 22-28.
- Palmer, Bruce, Jr. "How Bright, How Shining? Sheehan's Portrait of Vann and Vietnam." Parameters, June 1989, p. 18-23.

- Rainey, James W. "Ambivalent Warfare: The Tactical Doctrine of the AEF in World War I." Parameters, September 1983, p. 34-46.
- Record, Jeffrey. "Why Our High-Priced Military Can't Win Battles." The Washington Post, 29 January 1984, p. D1-D4.
- Richardson, William R. "Training for Maneuver Warfare." Armor, July-August 1981, p. 31-34.
- Scott, Glenn L. "British and German Operational Styles in World War II." Military Review, October 1985, p. 37-41.
- Schemmer, Benjamin F. "Internal Army Surveys Suggest Serious Concerns About Army's Senior Leadership." Armed Forces Journal International, May 1985, p. 18-20.
- Starry, Don A. "A Perspective on American Military Thought." Military Review, July 1989, p. 2-11.
- _____. "A Tactical Revolution - FM 100-5." Military Review, August 1978, p. 2-11.
- _____. "A Tactical Revolution - FM 100-5." Military Review, August 1978, p. 2-11.
- Strasser, Steven. "Can We Fight a Modern War?" Newsweek, 9 July, 1984, p. 34-48.
- Summers, Harry G. Jr. "Lebanon, Vietnam and the US Military." Wall Street Journal, 21 February 1984, p. 28.
- _____. "To Provide For the Common Defense." Parameters, September 1982, p. 2-9.
- Thau, Tom Morgan. "The New Warriors." Newsweek, 9 July 1984, p. 32-33.
- "The German Army's Mission-Oriented Command and Control." Armor, January-February 1981, p. 12-16.
- Ulmer, Walter F. Jr. "Leaders, Managers, and Command Climate." Armed Forces Journal International, July 1986, p. 54-76.
- _____. "The Army's New Senior Leadership Doctrine." Parameters, December 1987, p. 10-17.
- Vuono, Carl E. "Diverse Threats Demand Force Flexibility." Army, October 1985, p. 200-211.

Yasotay, Colonel. "Warriors: An Endangered Species."
Armed Forces Journal International, September 1984, p.
117-119.

UNPUBLISHED PAPERS

Hughes, David J. "Auftragstaktik." Unpublished paper for
Brassey's of London, Fort Leavenworth, 1989.